HISTORIC AMERICAN ENGINEERING RECORD

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HAER NEB 66-NEBCI, 6-

KREGEL WINDMILL COMPANY FACTORY 1416 Central Avenue Nebraska City Otoe County Nebraska

HAER No. NE-8

Jet Lowe	, Photographer,	. July	1994
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NE-8-9

Jet Lowe, Phot	ographer, July 1994
NE-8-1	SOUTH FRONT OF FACTORY BUILDING ON CENTRAL AVENUE, LOOKING NORTH.
NE-8-2	SOUTH FRONT OF FACTORY BUILDING ON CENTRAL AVENUE, LOOKING NORTHEAST, SHOWING WINDOWS, THREE ENTRANCE DOORS, PRESSED METAL SIDING, AND BRICK SIDEWALK.
NE-8-3	DETAIL OF SOUTH FRONT OFFICE WINDOW, SHOWING SIGN FOR KREGEL WINDMILL COMPANY
NE-8-4	NORTH REAR OF FACTORY BUILDING, LOOKING SOUTH, SHOWING SHED ADDITION FOR WELL-SERVICE VEHICLE, TOOLS, AND EQUIPMENT AND REAR ENTRANCE DOOR AND WINDOW INTO FACTORY. THE METAL OUTBUILDING IN THE LEFT FOREGROUND IS A SHOP-BUILT PRIVY ERECTED OVER A SANITARY SEWER. VISIBLE ON THE ROOF ARE TWO SKYLIGHT STRUCTURES AND FLUES FOR FORGE AND HEATING STOVE. THE BUILDING ON THE LEFT IS AN ADJACENT GROCERY STORE.
NE-8-5	NORTH ACROSS INTERIOR OF OFFICE IN SOUTHEAST CORNER OF BUILDING FROM DOORWAY IN SOUTH FRONT, SHOWING DRAFTING TABLE, MERCHANDISE DISPLAY CASE, DESKS, AND OFFICE FIXTURES/BUSINESS MACHINES.
NE-8-6	NORTHWEST ACROSS INTERIOR OF OFFICE IN SOUTHEAST CORNER OF BUILDING TOWARD SHOP DOOR, SHOWING TWO DESKS, SAFE, AND OFFICE FIXTURES/BUSINESS MACHINES.
NE-8-7	SOUTHEAST ACROSS INTERIOR OF OFFICE IN SOUTHEAST CORNER OF BUILDING TOWARD WINDOW ON STREET, SHOWING ONE DESK, OFFICE FIXTURES, AND LETTER BOXES FILLED WITH MANUSCRIPT BUSINESS RECORDS.
NE-8-8	DETAIL OF PAGE ONE IN VOLUME ONE OF KREGEL WINDMILL COMPANY LEDGERS RECORDING THE FOUNDING OF THE COMPANY ON 19 AUGUST 1879.

NORTHEAST FROM SOUTH ENTRANCE ACROSS RECEIVING

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AREA OF FACTORY PAST THE GLASS-ENCLOSED OFFICE TOWARD SHOP AREA. BESIDE THE VERTICAL POST ROOF SUPPORT IN THE LEFT FOREGROUND IS A SCALE AND DRAFTING TABLE. BESIDE THE OFFICE WALL ON THE RIGHT IS A SMALL SHOP REPAIR BENCH, WHILE ABOVE THE OFFICE WINDOWS ARE BOXES OF COMPANY MANUSCRIPT BUSINESS RECORDS. THE WELDED METAL PIPE RACK IS A MODERN INTRUSION.

NE-8-10

NORTH ACROSS RECEIVING AREA FROM NEAR DOORWAY INTO OFFICE TOWARD THE CENTER OF THE FACTORY BUILDING. THE WELDED STEEL PIPE RACK IS A MODERN INTRUSION. CABINETS AND SHELVES ON THE RIGHT CONTAIN TOOLS AND REPAIR PARTS.

NE-8-11

NORTH ACROSS PUMP REPAIR AREA ALONG EAST WALL INSIDE FACTORY. VIEW INCLUDES PARTS BINS AND BOXES ALONG WALL, MULTIPLE DRILL PRESS NEAR WALL, AND PUMP REPAIR WORK BENCH IN LEFT FOREGROUND. LEFT OF CENTER IN PHOTOGRAPH IS 1920S TURRET LATHE.

NE-8-12

SOUTH INSIDE FACTORY ALONG EAST WALL TO PARTS STORAGE SHELVES AND BINS OUTSIDE PARTITION WALL OF OFFICE. THE SOUTH PARTITION WALL IN THIS AREA IS FITTED WITH SHELVES COVERED WITH BOXES CONTAINING MANUSCRIPT COMPANY RECORDS. THE BENCH IN THE RIGHT FOREGROUND WAS USED FOR ATTACHING WROUGHT IRON CONNECTIONS TO THE ENDS OF WOODEN SUCKER RODS; THE WOODEN RODS WERE STORED ON THE RACKS ALONG THE EAST WALL OF THIS AREA.

NE-8-13

SOUTHEAST TO SUCKER ROD WORK BENCH AND WOODEN SUCKER ROD STORAGE RACKS ALONG EAST WALL OF FACTORY INTERIOR. AT THIS BENCH WORKERS RIVETED THREADED WROUGHT IRON CONNECTORS TO THE ENDS OF 20' LONG WOODEN SUCKER RODS (THE RODS WHICH EXTEND DOWNWARD IN THE WELL FROM THE GROUND SURFACE TO PISTON DISPLACEMENT PUMPS WHICH ACTUALLY ELEVATE WATER TO THE SURFACE). ROZNOR HEATER AT THE FAR RIGHT WAS ADDED CIRCA 1960.

NE-8-14

SOUTHWEST TO PUMP REPAIR WORK BENCH, WITH ELECTRIC PIPE THREADER AT RIGHT END OF BENCH. WOODEN BINS BENEATH THE BENCH CONTAIN THREADED PIPE, JOINTS, AND TOOLS. THE SOUTH FRONT OF THE FACTORY IS VISIBLE IN THE BACKGROUND.

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NE-8-15

SOUTH TOWARD FRONT OF FACTORY FROM PUMP REPAIR WORK BENCH, SHOWING HAND SHEAR MOUNTED ON A CASTER-FITTED TREE STUMP, WOOD-BURNING HEATING STOVE, CIRCA 1900 MICHIGAN MACHINERY MFG. CO. PUNCH PRESS, AND PART OF CIRCA 1910 "THE RACINE" RECIPROCATING HACK SAW. THE WELDED STEEL PIPE RACK IN THE LEFT BACKGROUND IS A MODERN INTRUSION.

NE-8-16

SOUTH TO VIEW OF CIRCA 1900 MICHIGAN MACHINERY MFG. CO. PUNCH PRESS WITH WOOD-BURNING HEATING STOVE LOCATED IN THE CENTER OF THE FACTORY BUILDING. BESIDE THE HEATING STOVE, POINTING TOWARD THE PUNCH PRESS, IS A JIG USED TO POSITION ANGLE STEEL COMPONENTS OF STEEL WINDMILL TOWER LEGS FOR PUNCHING BOLT HOLES. THE SUPPORT FOR THE BRICK FLUE OF THE HEATING STOVE IS CONSTRUCTED FROM SALVAGED GALVANIZED ANGLE STEEL OF THE TYPE USED IN FABRICATING WINDMILL TOWERS MANUFACTURED IN THE FACTORY.

NE-8-17

WEST TO CIRCA 1910 "THE RACINE" RECIPROCATING HACK SAW NEAR CENTER OF FACTORY BUILDING.

NE-8-18

SOUTHWEST TO CIRCA 1900 MICHIGAN MACHINERY MFG.
CO. PUNCH PRESS, CIRCA 1910 "THE RACINE"
RECIPROCATING HACK SAW, AND CIRCA 1900 SNAG
GRINDER NEAR CENTER OF FACTORY BUILDING. AT THE
RIGHT ARE THREE WHEELED WORK STATIONS. THE LINE
SHAFT WITH BELTS AND PULLEYS FOR OPERATING
MACHINERY IS VISIBLE IN THE RIGHT BACKGROUND.

NE-8-19

SOUTHEAST TO CIRCA 1900 FOUR-SPINDLE PRODUCTION DRILL PRESS ALONG EAST INTERIOR WALL OF FACTORY, SHOWING SHELVES AND BINS WITH TOOLS AND PARTS FOR PUMP AND WATER SYSTEM REPAIR.

NE-8-20

NORTHEAST TO CIRCA 1900 FOUR-SPINDLE PRODUCTION DRILL PRESS ALONG EAST INTERIOR WALL OF FACTORY, SHOWING SHELVES AND BINS WITH TOOLS AND PARTS FOR PUMP AND WATER SYSTEM REPAIR.

NE-8-21

SOUTH THROUGH FACTORY FROM NEAR NORTHEAST CORNER TOWARD SOUTH FRONT OF BUILDING. VISIBLE FROM LEFT TO RIGHT ARE CIRCA 1865 METAL-TURNING LATHE; CIRCA 1875 POWER SHEAR, PUNCH, AND RIVETING MACHINE (WITH FLOORING RAISED TO SHOW OPERATOR'S "PIT"); LINE SHAFT WITH PULLEYS AND BELTS FOR OPERATING MACHINERY; PERMANENT WOODEN LADDER TO SKYLIGHT

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AREA (LOCATION OF CIRCA 1920 ELECTRIC MOTOR WHICH POWERED LINE SHAFT); AND BUFFALO FORGE CO. HAND SHEAR FOR ANGLE STEEL.

NE-8-22

NORTHEAST TO GENERAL VIEW OF CIRCA 1875 POWER SHEAR, PUNCH, AND RIVETING MACHINE, SHOWING FLOOR SECTION RAISED TO EXPOSE OPERATOR'S "PIT" AND SHOWING SHOP-MADE WROUGHT IRON BRACE REPAIR TO CRACKED TOP OF MACHINE. IN LEFT FOREGROUND IS BUFFALO FORGE CO. HAND SHEAR FOR ANGLE STEEL. IN BACKGROUND IN NORTHEAST CORNER OF FACTORY INTERIOR IS BLACKSMITH SHOP AREA WITH HOOD OVER FORGE.

NE-8-23

NORTHEAST TO CIRCA 1875 POWER SHEAR, PUNCH, AND RIVETING MACHINE SET UP TO DEMONSTRATE USE IN RIVETING COMPONENTS OF WHEEL ARMS FOR ELI WINDMILLS. HISTORIC DEBRIS FROM PUNCHING WORK IS VISIBLE BENEATH THE MACHINE IN THE OPERATOR'S "PIT." ON THE LEFT IS A U-SHAPED LOVEJOY FIELD PUNCH FOR USE IN INSTALLING STEEL WINDMILL/TOWER COMPONENTS.

NE-8-24

NORTH TO CIRCA 1920 CINCINNATI AMES MFG. CO. TURRET LATHE WITH PARTS/TOOL BINS ALONG THE EAST INTERIOR WALL OF THE BUILDING. NEAR THE CEILING IS THE LINE SHAFT WITH BELTS AND PULLEYS FOR OPERATING MACHINERY.

NE-8-25

DETAIL OF CIRCA 1920 CINCINNATI AMES MFG. CO. TURRET LATHE SET UP AS FOR PRODUCTION WORK.

NE-8-26

SOUTH TO CIRCA 1865 METAL-TURNING LATHE (POSSIBLY MADE BY AMES MFG. CO., CHICOPEE, MASS.) WITH PARTS/TOOL BINS ALONG EAST INTERIOR WALL OF FACTORY. BENEATH THE LATHE ON THE FLOOR IS A STACK OF AUTOMOBILE AXLES AS "RAW MATERIAL" FOR FABRICATING REPAIR PARTS FOR PUMPS AND WATER SUPPLY EQUIPMENT. ON THE POST BEHIND THE MACHINE IS ONE OF THE HISTORIC ELECTRICAL FUSE/SWITCH BOXES FOR THE FACTORY.

NE-8-27

NORTHEAST TO TWO CIRCA 1900 DRILL PRESSES (LEFT TO RIGHT MADE BY W. F. AND J. BARNES CO., ROCKFORD, ILL., AND CHAMPION BLOWER AND FORGE CO., LANCASTER, PENN.) AND BLACKSMITH SHOP AREA ALONG EAST INTERIOR WALL AT NORTHEAST CORNER OF FACTORY BUILDING.

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NE-8-28

NORTH TO DETAIL OF CIRCA 1900 CHAMPION 20" DRILL PRESS MADE BY CHAMPION BLOWER AND FORGE CO. ALONG EAST INTERIOR WALL AT NORTHEAST CORNER OF FACTORY BUILDING.

NE-8-29

SOUTHEAST ACROSS BLACKSMITH SHOP AREA TOWARD TWO CIRCA 1900 DRILL PRESSES ALONG THE EAST INTERIOR WALL AT THE NORTHEAST CORNER OF THE FACTORY BUILDING. THE HOODED FORGE IS VISIBLE IN THE LEFT FOREGROUND, SHOWING LADLES USED FOR POURING BABBITT BEARINGS. MOUNTED ON THE WORK BENCH IS THE MAIN CASTING FROM AN ELI WINDMILL, USED AS A JIG TO SUPPORT PARTS DURING THE BABBITT BEARING POURING OPERATION. THE WALL ABOVE THE WORKBENCH SHOWS THE BOARDED-UP OPENING FOR A FORMER WINDOW.

NE-8-30

NORTHEAST TO BLACKSMITH SHOP AREA IN NORTHEAST CORNER OF FACTORY. A BENCH VICE STANDS IN LEFT FOREGROUND IN FRONT OF THE HOODED FORGE. MOUNTED ON THE WORK BENCH IS THE MAIN CASTING FROM AN ELI WINDMILL, USED AS A JIG TO SUPPORT PARTS DURING THE BABBITT BEARING POURING OPERATION.

NE-8-31

WEST TO PARTS AND TOOLS LOCATED DIRECTLY OPPOSITE FROM THE BLACKSMITH SHOP AREA IN THE NORTHEAST OUADRANT OF THE FACTORY. ON THE FLOOR AT THE LEFT SIDE IS A MANUAL PIPE THREADER FOR LARGE-DIAMETER PIPE (AS DROP PIPE IN WELLS FOR WATER SYSTEMS). BENEATH THE BENCH ARE UNMACHINED NEW OLD STOCK MAIN CASTINGS FOR ELI WINDMILLS, TOGETHER WITH A USED MAIN SHAFT/WHEEL HUB/CRANK PLATE ASSEMBLY WITH 1920S-1930S OIL RESERVOIR FROM ELI WINDMILL. THE CIRCULAR CASTING WITH CRESCENT-SHAPED PATTERNS IS A PORTION OF THE CAM MECHANISM FROM A "WESTERN GEARED GEARLESS" WINDMILL MADE BY THE WESTERN LAND ROLLER CO., HASTINGS, NEB. TO THE RIGHT ON THE BENCH IS A GEARED TIRE BENDER USED TO GIVE CURVATURE TO WHEEL RIMS OF ELI WINDMILLS. IN THE BACKGROUND ARE UNASSEMBLED COMPONENTS OF ELI WINDMILLS.

NE-8-32

NORTHWEST PAST BENCH WITH TIRE BENDER (USED TO GIVE CURVATURE TO WHEEL RIMS ON ELI WINDMILLS) TO BINS ALONG NORTH INTERIOR WALL OF FACTORY WITH NEW OLD STOCK UNASSEMBLED PARTS FOR ELI WINDMILLS.

NE-8-33

SOUTHWEST TO METALWORKING TOOLS AND UNASSEMBLED WINDMILL PARTS IN NORTHEASTERN QUADRANT OF FACTORY

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OPPOSITE FROM THE BLACKSMITH SHOP AREA. VISIBLE FROM LEFT TO RIGHT AMID THE CLUTTER OF PARTS ARE A TIRE BENDER (ON BENCH AT LEFT), A CIRCA 1910 BROACHING MACHINE, A CIRCA 1910 INTERNAL GRINDER, AND A CIRCA 1900 DROP HAMMER.

NE-8-34

SOUTH TO DETAIL OF CIRCA 1910 INTERNAL GRINDER USED TO SMOOTH THE INSIDE OF MAST PIPES ON ELI WINDMILLS.

NE-8-35

SOUTHEAST TO CIRCA 1910 BROACHING MACHINE USED TO CUT KEYWAYS IN SUCH CAST IRON PARTS AS THE CRANK PLATES FOR ELI WINDMILLS AFTER THEY WERE MACHINED ON ONE OF THE LATHES.

NE-8-36

SOUTHWEST TO BELT-POWERED CIRCA 1900 DROP HAMMER IN NORTHEASTERN QUADRANT OF FACTORY OPPOSITE FROM THE BLACKSMITH SHOP AREA. THIS MACHINE WAS USED TO SHAPE THE STEEL VANE HINGE PART AFTER IT WAS HEATED IN THE FORGE IN THE ADJACENT BLACKSMITH SHOP AREA. USE OF THE ROTATING POWER OF THE PULLEY AT THE TO MADE LIFTING THE HAMMER COMPARATIVELY QUICK AND EASY. AROUND THE MACHINE ARE WHEEL PARTS FOR ELI WINDMILLS. AT THE LEFT FOREGROUND IS A CIRCA 1900 FOUR-SPINDLE PRODUCTION DRILL PRESS WHICH WAS RELOCATED TO THIS AREA APPARENTLY AFTER THE END OF WINDMILL MANUFACTURE.

NE-8-37

NORTH TO BINS ALONG NORTH WALL OF FACTORY BUILDING WHICH REMAIN FILLED WITH NEW OLD STOCK AND USED PARTS FOR ELI WINDMILLS. THE ROPE AT THE LOWER FOREGROUND WAS USED IN ERECTING WINDMILLS AND TOWERS FOR CUSTOMERS.

NE-8-38

METAL WORKING TOOLS AND MACHINES ADJACENT TO THE CIRCA 1900 MICHIGAN MACHINERY MFG. CO. PUNCH PRESS NEAR THE CENTER OF THE FACTORY BUILDING. AT THE LEFT FOREGROUND IS A MOVABLE TIRE BENDER FOR SHAPING ELI WINDMILL WHEEL RIMS. AT THE CENTER IS A FLOOR-MOUNTED CIRCA 1900 SNAG GRINDER OF THE TYPE USED FOR SMOOTHING ROUGH CASTINGS. ON THE WHEELED WORK STATION IS A SUNNEN BUSHING GRINDER, BEHIND WHICH IS A TRIPOD CHAIN VICE. IN THE CENTER BACKGROUND IS A WOODEN CHEST OF DRAWERS WHICH CONTAINS A "RAG DRAWER" STILL FILLED WITH CLOTH RAGS PLACED IN THE FACTORY BUILDING AT THE INSISTENCE OF LOUISE (MRS. ARTHUR) KREGEL FOR THE CONVENIENCE AND CLEANLINESS OF WORKERS. IN THE

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LEFT BACKGROUND IS A CIRCA 1900 CROSS-CUTOFF CIRCULAR SAW.

NE-8-39

NORTH TOWARD GENERAL VIEW OF WOODWORKING SHOP AREA IN THE NORTHWESTERN QUADRANT OF THE FACTORY. THE LINE SHAFT, BELTS, AND PULLEYS WHICH OPERATED MACHINERY ARE CLEARLY VISIBLE BENEATH THE SKYLIGHT IN THE CEILING. A SHOP-MADE BELT GUARD MADE FROM SAWED LUMBER AND HARDWARE CLOTH IS SEEN NEAR THE CENTER OF THE PHOTOGRAPH, BENEATH WHICH ARE A CIRCA 1900 TABLE SAW AND A SMALL WHEELED WORK STATION WITH A BELT-ACTUATED PAINT PIGMENT GRINDER. IN THE RIGHT AREA OF THE IMAGE ARE A TIRE BENDER AND A CIRCA 1900 CROSS-CUTOFF CIRCULAR SAW. SAWHORSES AT THE LEFT SIDE SUPPORT STACKED LUMBER IN FRONT OF A CIRCA 1900 THICKNESS PLANER.

NE-8-40

NORTH ACROSS WOODWORKING AREA IN NORTHWESTERN QUADRANT OF FACTORY ACROSS STACKED LUMBER ON SAWHORSES TOWARD CIRCA 1900 THICKNESS PLANER, SHOP-MADE BELT GUARD, AND BELOW THE SKYLIGHT OVERHEAD LINE SHAFT, BELTS, AND PULLEYS. BEYOND THE LUMBER ON A WHEELED WORK STATION ARE CIRCA 1900 ROLLS FOR BENDING PROPER CURVATURE IN STEEL WINDMILL BLADES AND CIRCA 1900 BEADING MACHINE FOR FORMING CREASES IN THE EDGES OF SHEET METAL PARTS SUCH AS WHEEL BLADES.

NE-8-41

SOUTHEAST ACROSS WOODWORKING SHOP AREA IN NORTHWESTERN QUADRANT OF FACTORY SHOWING ON LEFT CIRCA 1900 CROSS-CUTOFF CIRCULAR SAW AND ON RIGHT CIRCA 1900 TABLE SAW. BEHIND THE CROSS-CUTOFF SAW IS A CIRCA 1900 SNAG GRINDER. IN THE CENTER BACKGROUND IS THE CIRCA 1900 MICHIGAN MACHINERY MFG. CO. PUNCH PRESS.

NE-8-42

WEST TO CIRCA 1900 JOINER ALONG WEST INTERIOR WALL OF FACTORY, BEHIND WHICH ARE MOUNTED JIGS AND PATTERNS FOR WINDMILL AND STEEL WATER TANK CONSTRUCTION, AS WELL AS THIN SHEET STEEL STENCILS USED FOR MARKING PRODUCTS WITH PAINT.

NE-8-43

WEST TO DETAIL OF WHEELED SHEET METAL WORK STATION BEARING ON LEFT CIRCA 1900 ROLLS FOR BENDING STEEL WINDMILL BLADES TO PROPER CURVATURE AND ON RIGHT CIRCA 1900 BEADING MACHINE FOR ADDING STIFFENING CREASES TO THE EDGES OF SHEET METAL PARTS SUCH AS BLADES.

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NE-8-44

SOUTHWEST TO CIRCA 1900 SHEET METAL BRAKE, THE MACHINE USED TO BEND SHEET METAL TO EXACT ANGLES AS IN STEEL WATER TANK MANUFACTURE. IN THE BACKGROUND IS THE INTERIOR WEST WALL OF THE FACTORY, ITS SHELVES BEARING WATER PUMPS, PARTS FOR PUMPS AND WATER SUPPLY EQUIPMENT, AND NEW OLD STOCK MERCHANDISE.

NE-8-45

WEST TO CIRCA 1900 SHEET METAL SHEAR, THE MACHINE USED TO CUT SHEET METAL USED IN WINDMILLS AND WATER TANKS. IN THE BACKGROUND IS THE INTERIOR WEST WALL OF THE FACTORY, ITS SHELVES BEARING WATER PUMPS, PARTS FOR PUMPS AND WATER SUPPLY EQUIPMENT, AND NEW OLD STOCK MERCHANDISE.

NE-8-46

NORTH THROUGH SHEET METAL AND ASSEMBLY AREA IN SOUTHWESTERN QUADRANT OF FACTORY AS SEEN FROM DOORWAY IN SOUTH FRONT WALL. ALONG WEST INTERIOR WALL ARE SHELVES BEARING WATER PUMPS, PARTS FOR PUMPS AND WATER SUPPLY EQUIPMENT, AND NEW OLD STOCK MERCHANDISE. IN FRONT OF THE WALL ARE THE CIRCA 1900 SHEET METAL SHEAR AND CIRCA 1900 SHEET METAL BRAKE. AT THE RIGHT SIDE OF THE IMAGE ALONGSIDE VERTICAL CEILING SUPPORTS IS METAL—COVERED BENCH FOR SHEET METAL WORK.

NE-8-47

DETAIL OF ORIGINAL VANE ASSEMBLY AND TWO WHEEL SECTIONS FROM ELI WINDMILLS, THE VANE SHEET BEARING STENCILED PAINTED INSCRIPTION, "KREGEL WINDMILL CO. ELI NEBRASKA CITY, NEB." VISIBLE IN THE IMAGE ARE BOTH SIDES OF THE WHEEL SECTIONS, SHOWING THE METHOD OF BLADE MOUNTING FOR ELI WINDMILLS.

NE-8-48

EAST TO EAST INTERIOR WALL OF WELL-SERVICE SHED ADDITION ON REAR OF FACTORY BUILDING. HANGING FROM AND LEANING AGAINST THE WALL ARE TOOLS USED IN WATER WELL SERVICE, SUCH AS BAILER, CHAINS, WRENCHES, PULLEYS, ROPE, AND SAFETY BELT.

NE-8-49

EAST TO DETAIL OF EAST INTERIOR WALL OF WELL-SERVICE SHED ADDITION ON REAR OF FACTORY BUILDING. HANGING FROM AND LEANING AGAINST THE WALL ARE TOOLS USED IN WATER WELL SERVICE, SUCH AS BAILER, "FISHING" TOOLS, WINDMILL AND STEEL TOWER PARTS, CHAINS, WRENCHES, PULLEYS, ROPE, AND SAFETY BELT.

NE-8-50

SOUTHEAST TO SOUTHEAST CORNER OF WELL-SERVICE SHED

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ADDITION ON REAR OF FACTORY BUILDING. HANGING FROM AND LEANING AGAINST THE WALL ARE TOOLS USED IN WATER WELL SERVICE, SUCH AS BAILER, CHAINS, WRENCHES, PULLEYS, ROPE, SAFETY BELT, CHAIN TONGS, AND LEATHER SEALS FOR PISTON DISPLACEMENT PUMPS. CLEARLY VISIBLE ON RAFTERS IS HISTORIC ELECTRICAL WIRING.

NE-8-51	WEST ACROSS CLUTTER TO WEST WALL OF WELL-SERVICE
	SHED ADDITION ON REAR OF FACTORY BUILDING. AT
	LOWER RIGHT FOREGROUND IS 1960S PICKUP TRUCK, THE
	LAST MOTOR VEHICLE USED IN WELL SERVICE BY THE
	KREGEL WINDMILL COMPANY. MOST OF THE OBJECTS
	VISIBLE IN THIS VIEW ARE CLUTTER NOT RELATED TO
	THE WELL SERVICE BUSINESS.

NE-8-52	GENERAL	VIEW OF	ELI W	INDMILL C	N STEEL	TOWER IN	
	PASTURE	LOCATED	ABOUT	6-8 MILE	S SOUTH	OF NEBRASK	(A
	CITY ABO	OUT ONE	MILE	WEST OF	NEBRASKA	HIGHWAY 7	75.

NE-8-53	GENERAL	VIEW (OF EL	I WI	NDMILL	ON	STEEL	TOWER	TA 9
	GEORGE	STUCKE	NOLZ 1	FARM	ABOUT	6 I	MILES	SOUTH	OF
	NEBRASK	A CITY	WEST	\mathbf{OF}	NEBRASE	KA 1	HIGHWA	Y 75.	

- NE-8-54 GENERAL VIEW OF ELI WINDMILL ON STEEL TOWER ON HIGHWAY L44 IN IOWA JUST EAST OF NEBRASKA CITY, NEBRASKA.
- NE-8-55 TOP OF STEEL TOWER WITH ELI WINDMILL LOCATED ABOUT 6-8 MILES SOUTH OF NEBRASKA CITY AT EAST SIDE OF NEBRASKA HIGHWAY 75.
- NE-8-56 DETAIL OF BASE OF STEEL WINDMILL TOWER WITH CAST IRON HAND PUMP OVER WELL HEAD ON HIGHWAY L44 IN IOWA JUST EAST OF NEBRASKA CITY, NEBRASKA.
- NE-8-57 DETAIL OF HEAD AND WHEEL OF ELI WINDMILL ON THE GROUND AT THE STOLL RESIDENCE, ABOUT 1-1/2 MILES WEST OF NEBRASKA CITY ON STEAM WAGON ROAD.
- NE-8-58 DETAIL OF HEAD OF ELI WINDMILL ON THE GROUND AT THE STOLL RESIDENCE, ABOUT 1-1/2 MILES WEST OF NEBRASKA CITY ON STEAM WAGON ROAD.
- NE-8-59 GENERAL VIEW OF HEAD, WHEEL, AND VANE ASSEMBLY OF ELI WINDMILL ON THE GROUND AT THE STOLL RESIDENCE ABOUT 1-1/2 MILES WEST OF NEBRASKA CITY ON STEAM WAGON ROAD.

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NE-8-60	VIEW FROM TOWER PLATFORM TOWARD THE HEAD AND WHEEL OF AN ELI WINDMILL ON THE GROUND AT THE STOLL RESIDENCE ABOUT 1-1/2 MILES WEST OF NEBRASKA CITY ON STEAM WAGON ROAD.
NE-8-61	DETAIL OF HEAD, VANE STEM, VANE HINGE, AND WHEEL OF AN ELI WINDMILL ON THE GROUND AT THE STOLL RESIDENCE ABOUT 1-1/2 MILES WEST OF NEBRASKA CITY ON STEAM WAGON ROAD.
NE-8-62	GENERAL VIEW OF ELI WINDMILL AND STEEL TOWER ON THE GROUND AT THE STOLL RESIDENCE ABOUT 1-1/2 MILES WEST OF NEBRASKA CITY ON STEAM WAGON ROAD.
NE-8-63	VIEW FROM BASE AREA INSIDE FRAMEWORK OF STEEL WINDMILL TOWER WITH ELI WINDMILL ON THE GROUND AT STOLL RESIDENCE ABOUT 1-1/2 MILES WEST OF NEBRASKA CITY ON STEAM WAGON ROAD.
NE-8-64	VIEW FROM BASE AREA INSIDE FRAMEWORK OF STEEL WINDMILL TOWER WITH ELI WINDMILL ON THE GROUND AT STOLL RESIDENCE ABOUT 1-1/2 MILES WEST OF NEBRASKA CITY ON STEAM WAGON ROAD.
NE-8-65	DETAIL OF STOVER WINDMILL REGULATOR (MADE BY STOVER MFG. CO., FREEPORT, ILL.) MOUNTED ON STEEL WINDMILL TOWER WITH ELI WINDMILL ON THE GROUND AT STOLL RESIDENCE ABOUT 1-1/2 MILES WEST OF NEBRASKA CITY ON STEAM WAGON ROAD. WINDMILL REGULATORS AUTOMATICALLY TURNED OFF WATER PUMPING WINDMILLS

WHICH THIS REGULATOR WAS MADE.

WHEN WATER RESERVOIRS FILLED. INSCRIPTION ON CASTING READS "6-8-9-10 FT. MILLS," THE SIZES FOR